

**Notice of Allowability**

Application No.

10/637,088

Examiner

Harry D. Wilkins, III

Applicant(s)

HERCEG ET AL.

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1742

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 30 January 2006.
2. ☒ The allowed claim(s) is/are 9,10,12-15 and 17-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Harry D. Wilkins, III*

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joy Alwan on 8 March 2006.

The application has been amended as follows:

Cancel claims 1-8.

Replace claim 9 with the following:

--9. A device for electrefining uranium and other metals contained in spent metallic nuclear fuels, the device comprising:

a) a hopper positioned above a first containment vessel and having a means of passage to the containment vessel;

b) a first anode comprising the first containment vessel, a segmented belt, segment connectors, shredded nuclear fuel, and a drive sprocket in electrical communication wherein the segmented belt transports the fuel between the first and a second containment vessel;

c) a first cathode comprising a cylindrical drum suspended within an annular space of the first containment vessel;

d) a first electrolytic salt bath contained within the first containment vessel in electrical communication with the first anode and first cathode;

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e) a second anode comprising the segmented belt and the drive sprocket in electrical communication;

f) a second cathode comprising the second containment vessel;

g) a second electrolytic salt bath in electrical communication with the second anode and second cathode;

h) a scraper for removing elemental uranium dendrites from the first cathode; and

i) a receptacle for collecting the uranium dendrites.--

Replace claim 10 with the following:

--10. The device as recited in claim 9 wherein the segmented belt in electrical communication with the first containment vessel comprises:

a) a perforated segmented belt, a mesh screen resting on and contacting the fuel carrying side of the belt;

b) interlocking segment connectors which define weirs of the belt segments; and,

c) bristle containing brush tip attached to the outer surface of the connectors and in electrical communication with an inner surface of the first containment vessel.--

In claim 12, replace "in the first anode," with --at the first-- and delete ", and electrolytic salt bath".

Replace claim 13 with the following:

--13. The device as recited in claim 9 wherein the second electrolytic salt bath is adapted to receive the segmented belt and is for cleaning.--

In claim 14, replace "scraper" with --scraper-- and insert --first-- before "electrolytic".

In claim 15, replace "first anode" with "--segmented belt" and replace "move" with "--rotate--".

Cancel claim 16.

Replace claim 17 with the following:

--17. The device as recited in claim 9 wherein the anodes and cathodes are made from a heat tolerant material selected from the group consisting of low-carbon steel, ferritic stainless steel, stainless steel and alloys thereof.--

In claim 19, insert "--electrolytic--" before "salt baths".

Replace claim 21 with the following:

--21. The device as recited in claim 9 wherein the segmented belt has porosity to allow uranium ions to migrate through the segmented belt to the first cathode.--


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D. Wilkins, III whose telephone number is 571-272-1251. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Harry D Wilkins, III  
Examiner  
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